

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Currently Amended) A liposome having a bilayer comprising a lipid component which comprises a compound having the formula

$R^1-Y^1-CHZ^1-CH(NY^2Y^3)-CH_2-Z^2$, wherein:

R^1 is a straight-chained alkyl, alkenyl or alkynyl group having from 5 to 19 carbon atoms in the aliphatic chain;

Y^1 is $-CH=CH-$, $-C\equiv C-$ or $-CH(OH)CH(OH)-$;

Z^1 is OH or a conversion-inhibiting group;

Y^2 is H, a phenyl group, an alkyl-substituted phenyl group having from 1 to about 6 carbon atoms in the alkyl chain, or an alkyl chain having from 1 to 6 carbon atoms;

Y^3 is H or a group having the formula $-C(O)R^2$ or $-S(O)_2R^2$;

R^2 is a straight-chained alkyl moiety selected from the group consisting of $-(CH_2)_3CH_3$, $-(CH_2)_5CH_3$, $-(CH_2)_7CH_3$ and $-(CH_2)_9CH_3$, or an alkenyl group or alkynyl group having from 2 to 23 carbon atoms in the aliphatic chain;

Z^2 is OH or a phosphorylcholine attachment-inhibiting group selected from the group consisting of $-X^1$, $-OX^1$, $-X^2X^3$ and $-OX^2X^3$;

X^1 is selected from the group consisting of $-C(O)H$, $-CO_2H$, CH_3 , $C(CH_3)_3$, $Si(CH_3)_3$, $SiCH_3(C(CH_3)_3)_2$, $Si(C(CH_3)_3)_3$, $Si(PO_4)_2C(CH_3)_3$, a phenyl group, an alkyl-substituted phenyl group having from 1 to 6 carbon atoms in the alkyl chain, an alkyl chain having from 1 to 6 carbon atoms, an amino group, a fluorine atom, a chlorine atom, and a group having the formula $C(R^3R^4)OH$;

X^2 is selected from the group consisting of CH_2- , $C(CH_3)_2-$, $Si(PO_4)_2-$, $Si(CH_3)_2-$, $SiCH_3PO_4-$, $C(O)-$ and $S(O)_2-$;

X^3 is selected from the group consisting of $-C(O)H$, $-CO_2H$, $-CH_3$, $-C(CH_3)_3$, $-Si(CH_3)_3$, $-SiCH_3(C(CH_3)_3)_2$, $-Si(C(CH_3)_3)_3$, $-Si(PO_4)_2C(CH_3)_3$, a phenyl group, an alkyl-substituted phenyl group having from 1 to 6 carbon atoms in the alkyl chain, an alkyl chain having from 1 to 6 carbon atoms, an amino moiety, a chlorine atom, a fluorine atom, or

a group having the formula $C(R^3R^4)OH$, wherein each of R^3 and R^4 is independently an alkyl chain having from 1 to 6 carbon atoms, a phenyl group or an alkyl-substituted phenyl group having from 1 to 6 carbon atoms in the alkyl chain;

wherein when Z^2 is an amino group, R^2 is an aliphatic chain having from ± 2 to 9 or from 19 to 23 carbon atoms in the aliphatic chain;

and wherein the compound comprises at least about 5 mole percent of the lipid component.

Claim 2 (Original): The liposome of claim 1, wherein R^1 is $CH_3(CH_2)_{12}$, Y^1 is $-CH=CH-$ and Y^2 is H.

Claim 3 (Original): The liposome of claim 1, wherein Y^3 is $-C(O)(CH_2)_4CH_3$.

Claim 4 (Original) The liposome of claim 1, wherein the conversion-inhibiting group is $-OSi(CH_3)_2C(CH_3)_3$.

Claim 5 (Original) The liposome of claim 1, wherein the compound has the formula $CH_3(CH_2)_{12}-CH=CH-CH_2Z^1-CH(NHY^3)-CH_2-Z^2$.

Claim 6 (Original) The liposome of claim 5, wherein Y^3 is $-C(O)(C_2)_4CH_4CH_3$ and wherein Z^2 is $-OC(O)CH_3$, $-OC(O)CH_2CH_2CH_3$, $-OC(O)CH(CH_3)CH_3$, or $-OSi(CH_3)_2C(CH_3)_3$.

Claim 7 (Original) The liposome of claim 1, wherein the compound comprises at least about 10 mole percent of the lipid.

Claim 8 (Original) The liposome of claim 1 comprising an additional bioactive agent.

Claim 9 (Original) The liposome of claim 1, wherein the lipid further comprises vitamin D₃.

Claim 10 (Original) The liposome of claim 9, wherein vitamin D₃ comprises about 1 mole percent of the lipid.

Claim 11 (Original) The liposome of claim 1, wherein the lipid further comprises a headgroup modified lipid.

Claim 12 (Original) The liposome of claim 1 which is dehydrated.

Claim 13 (Original) A pharmaceutical composition comprising the liposome of claim 1.

Claim 14 (Original) A method of administering a bioactive liposome to an animal which comprises administering to the animal the pharmaceutical composition of claim 13.

Claim 15 (Original) The method of claim 14, wherein the animal is afflicted with a cancer and wherein the amount of the composition administered comprises at least about 0.1 mg of the compound per kg of the animal's body weight.

Claims 16-78 (Canceled Previously).

Claim 79 (Previously Presented): The method of claim 15, wherein the cancer is a brain, breast, lung, ovarian, colon, stomach or prostate cancer.

Claim 80 (Previously Presented): The method of claim 15, wherein the cancer is a sarcoma, carcinoma, neuroblastoma, glioma or drug resistant cancer

Claim 81 (Previously Presented): The method of claim 14, wherein the animal is a human.

Claim 82 (Previously Presented): The liposome of claim 1, wherein Z₁ is OH or a conversion-inhibiting group selected from the group consisting of -X¹, -OX¹, -X²X³ and -OX²X³.

Claim 83 (Currently Amended): The liposome of claim 1, wherein R^2 is an alkyl chain moiety selected from the group consisting of $-(CH_2)_3CH_3$, $-(CH_2)_5CH_3$, $-(CH_2)_7CH_3$ and $-(CH_2)_9CH_3$.

Claim 84 (Previously Presented): The liposome of claim 1, wherein R^1 is $CH_3(CH_2)_{12}-$.

Claim 85 (Previously Presented): The liposome of claim 1, wherein Y^1 is $-CH=CH-$.

Claim 86 (Previously Presented): The liposome of claim 1, wherein Y^2 is H.

Claim 87 (Previously Presented): The liposome of claim 1, wherein Y^3 is $-C(O)R^2$.

Claim 88 (Previously Presented): The liposome of claim 1, wherein Z^1 is OH.

Claim 89 (Previously Presented): The liposome of claim 88, wherein Z^2 is a group having the formula $-X^2X^3$ or $-O-X^2X^3$.

Claim 90 (Previously Presented): The liposome of claim 89, wherein Z^2 is $-OC(O)CH_3$, $-OC(O)CH_2CH_2CH_3$, $-OC(O)CH(CH_3)CH_3$ or $-OSi(CH_3)_2C(CH_3)_3$.

Claim 91 (Previously Presented): The liposome of claim 90, wherein Z^2 is $-OSi(CH_3)_2C(CH_3)_3$.

Claim 92 (Previously Presented): The liposome of claim 88, wherein Z^2 is a group having the formula $-X^1$ or $-OX^1$.

Claim 93 (Currently Amended): The liposome of claim 1, wherein Z^1 is a conversion-inhibiting group selected from the group consisting of $-X^1$, $-OX^1$, $-X^2X^3$ and $-OX^2X^3$.

Claim 94 (Currently Amended): The liposome of claim 93, wherein Z^1 the
conversion-inhibiting group is $-\text{OC}(\text{O})\text{CH}_3$, $-\text{OC}(\text{O})\text{CH}_2\text{CH}_2\text{CH}_3$, $-\text{OC}(\text{O})\text{CH}(\text{CH}_3)\text{CH}_3$ or
 $-\text{OSi}(\text{CH}_3)_2\text{C}(\text{CH}_3)_3$.

Claim 95 (Previously Presented): The liposome of claim 1, wherein the compound
having the formula $\text{R}^1-\text{Y}^1-\text{CHZ}^1-\text{CH}(\text{NY}^2\text{Y}^3)-\text{CH}_2-\text{Z}^2$ is $\text{CH}_3-(\text{CH}_2)_{12}-\text{CH}=\text{CH}-\text{CH}_2\text{Z}^1-$
 $\text{CH}(\text{NH}\text{Y}^3)-\text{CH}_2\text{Z}^2$.

Claim 96 (Previously Presented): The liposome of claim 95, wherein Z^1 is OH and Y^3
is a group having the formula $-\text{C}(\text{O})\text{R}^2$.

Claim 97 (Previously Presented): The liposome of claim 96, wherein Y^3 is
 $-\text{C}(\text{O})(\text{CH}_2)_4\text{CH}_3$.

Claim 98 (Previously Presented): The liposome of claim 87, wherein Z^2 is
 $-\text{OSi}(\text{CH}_3)_2\text{C}(\text{CH}_3)_3$, $-\text{OSi}(\text{PO}_4)_2\text{C}(\text{CH}_3)_3$, $-\text{C}(\text{O})\text{CH}_3$ or $-\text{OC}(\text{O})\text{CH}_2\text{CH}_2\text{CH}_3$.

Claim 99 (Previously Presented): The liposome of claim 1, wherein the bilayer
comprises at least about 10 mole percent of the compound having the formula $\text{R}^1-\text{Y}^1-\text{CHZ}^1-$
 $-\text{CH}(\text{NY}^2\text{Y}^3)-\text{CH}_2-\text{Z}^2$.